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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.	:	10/761,409
Applicant	:	Hill, Steve et al.
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Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Sir:

VOLUNTARY AMENDMENT

Please amend the specification of this application as follows:

Amendments to the Description are reflected on page 2 of this paper.

Amendments to the Abstract are reflected on page 3 of this paper.

Amendments to the Claims are reflected in the listing of claims, which begins on page 4 of this paper.

Remarks/Arguments beginning on page 11 of this paper.

Amendments to the Description:

Please amend the following description paragraphs:

Page 5, the paragraph beginning at line 11:

SUMMARY OF THE INVENTION

In one aspect, the present invention provides a doped semiconductor nanocrystal layer, the doped semiconductor nanocrystal layer comprising (a) a group IV oxide layer which is free of ion implantation damage, (b) ~~from 30 to 50 atomic percent of a~~ semiconductor nanocrystals distributed in the group IV semiconductor oxide layer, and (c) from 0.5 to 15 atomic percent of one or more rare earth element, the one or more rare earth element being (i) dispersed on the surface of the semiconductor nanocrystals and (ii) distributed substantially equally through the thickness of the group IV oxide layer~~.~~ ; wherein the total amount of semiconductor elements in the doped semiconductor nanocrystal layer is from 30 to 50 atomic percent.

Page 7, the paragraph beginning at line 17:

The semiconductor nanocrystals that are dispersed within the group IV semiconductor oxide layer are preferably the nanocrystal of a group IV semiconductor, e.g. Si or Ge, of a group II-VI semiconductor, e.g. ZnO, ZnS, ZnSe, CaS, CaTe or CaSe, or of a group III-V semiconductor, e.g. GaN, GaP or GaAs. The nanocrystals are preferably from 1 to 10 nm in size, more preferably from 1 to 3 nm in size, and most preferably from 1 to 2 nm in size. Preferably, the nanocrystals are present within the group IV semiconductor oxide layer as a result of silicon introduced in a concentration of from 30 to 50 atomic percent, more preferably in a concentration of 37 to 47 atomic percent, and most preferably in a concentration of from 40 to 45 atomic percent.